USER'S MANUAL

X2-M5 & 52X-BW
EURO SPEC

Thank you for purchasing this PIVOT product. Please read this manual carefully before installation and use. Please keep this manual for future reference.

⚠ WARNING Improper use or disregard of these warnings may result in the injury or death of people.

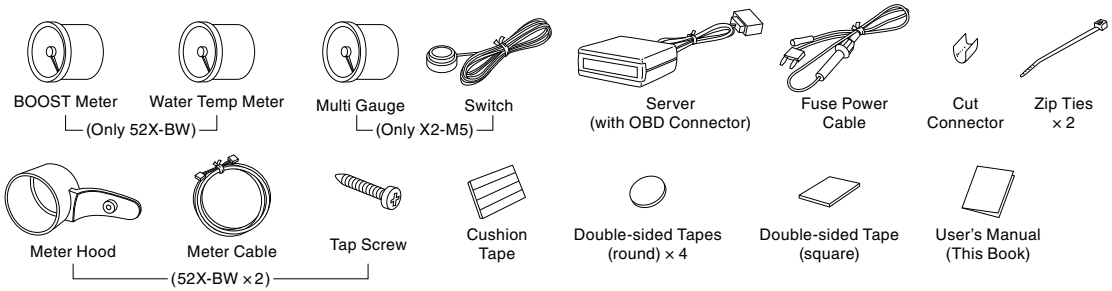
- **Do not work in areas where there is excessive exhaust.**
  Due to vehicle exhaust emission poisoning or fire may result in a damage to humans.
- **Do not crush the cable.**
  Please be careful that the cable does not get crushed by the seat rail or car door steel plate, nor cut by any sharp steel plate as this may cause a poor connection or an electric short leading to fire or other danger.
- **Do not operate while driving.**
  Operating or checking the display during driving may cause an accident; please use with the utmost consideration for safety.
- **Please securely fasten the product to a stable placeand be sure to store bundle away all wires with tape, etc...**
  It is very dangerous to pull tangled wires by force or allow tangled wires to interfere with driving.

⚠ CAUTION Improper use or disregard of these warnings may cause injury to persons, damage the product and other things.

- **This product is for DC12V cars;**
  Installation cannot be carried out on cars with other voltage batteries.
- **Just after installation do not exert any strong force on the product.**
  When double-sided tape is used for an installation be warned that when hot the tape temporarily losses adhesiveness.
- **Do Not Use Chemical Cleansers.**
  If the unit gets dirty please wipe with a soft cloth to remove any dirt. Do not use chemical cleansers such as thinner, benzene, or alcohol.
- **Do not install the product in any place subject to high temperature or any place where water may be splashed.**
- **Make sure to replace all screws and parts to their original place.**
- **Do not install the product in a place where it will cause distraction.**
- **Do not, in any manner, process, take apart, or make changes to this product.**

⚠
1. **The display will not be proper if the ECU being used is not the standard one or if a sub-computer is being used, even in compatible car models.**
2. **Cannot be used in combination with other company's products that use Diagnostic Monitoring Connectors.**
3. **For details about using in combination with other PIVOT products that use Diagnostic Monitoring Connectors please see our Web Site at *http://pivotjp.com/obd-e/*.**
4. **The meter hood can become extremely hot when exposed to direct sunlight; be particularly careful of burns.**

Please check the contents of the package

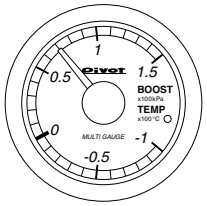
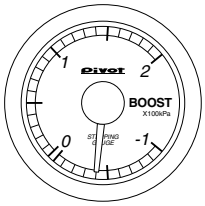
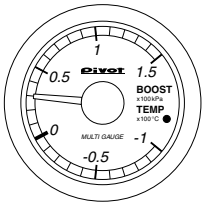
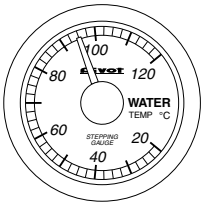


Features

With our X2-M5 and 52X-BW, just by connecting to the diagnostic monitoring connector, the MINI specialized CAN communication can be analyzed and two types of data can be simultaneously displayed. (Not for use with incompatible models)

Simple Connector Installation	Install by simply connecting to the diagnostic monitor connector and fuse box.
Low-Priced	Metallic molded meter holder means reasonable pricing.
Meter Holder	Newly designed lightweight meter holder with superior adhesion means less movement under vibration.
Same Illumination	Uses same orange Illumination as that of standard meters.
Switch	The X2-M5 display switch is an easy-to install adhesive type.

Displays and Uses

Item	BOOST (Absolute pressure display*)		Water Temperature		Opening Demo
Display	**[X2-M5]** -100 ~ 150 kPa / **[52X-BW]** -100 ~ 154 kPa		**[X2-M5]** -40 °C ~ 150 °C / **[52X-BW]** 20 °C ~ 120 °C		During the Opening Demo, the needle will move slightly to minus several times. Then it will move to the maximum value and finally to reading for current measurement item.
Uses	• Check Boost • For Eco-driving [Vacuum] and so on		• Prevention of overheating • Check Heating and so on		
Example					
	[X2-M5] 70 kPa	**[52X-BW]** -40 kPa	**[X2-M5]** 30°C	**[52X-BW]** 95°C	

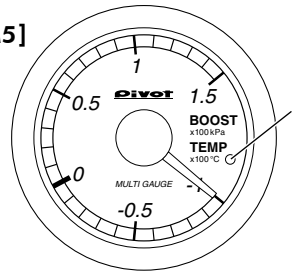
* This display of absolute pressure includes barometric pressure and may differ from a meter showing relative pressure (mechanical type).
* With the key in the ON position, due to altitude the boost needle may show a minus reading.

⚠ If the boost limiter has been made inactive, the display may not function properly.

Part Names

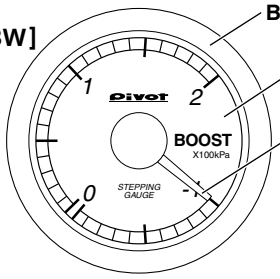
• Meter

[X2-M5]



Mode Lamp
(Only X2-M5)
Lamp ON while showing water temperature.

[52X-BW]



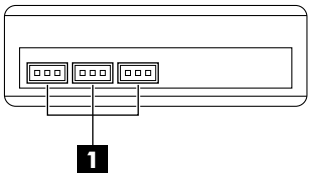
Bezel

Dial

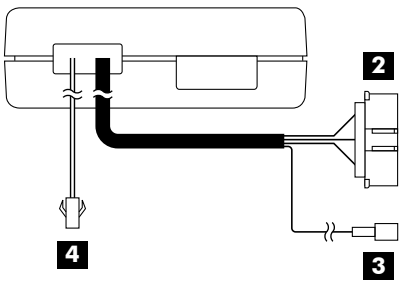
Needle
Shows the current values.

• Server (Common)

(View from Meter Connection)



(View from Car Connection)



1 Meter Output Connector
Connect the Meter Cable

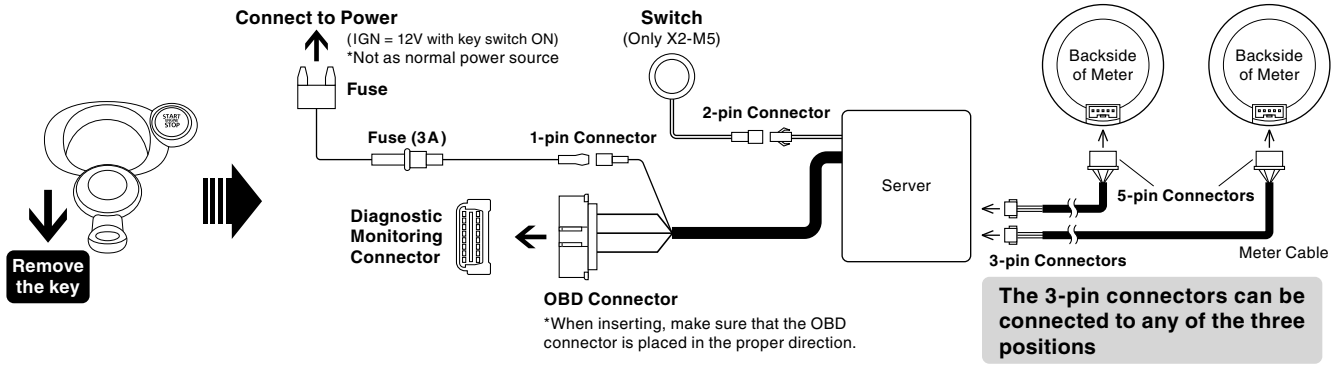
2 OBD Connector
Connect to get Communication Signal

3 1-pin Connector
Connect the Fuse Power Cable

4 2-pin Connector
Connect the 2-pin Connector from the Switch (only X2-M5)

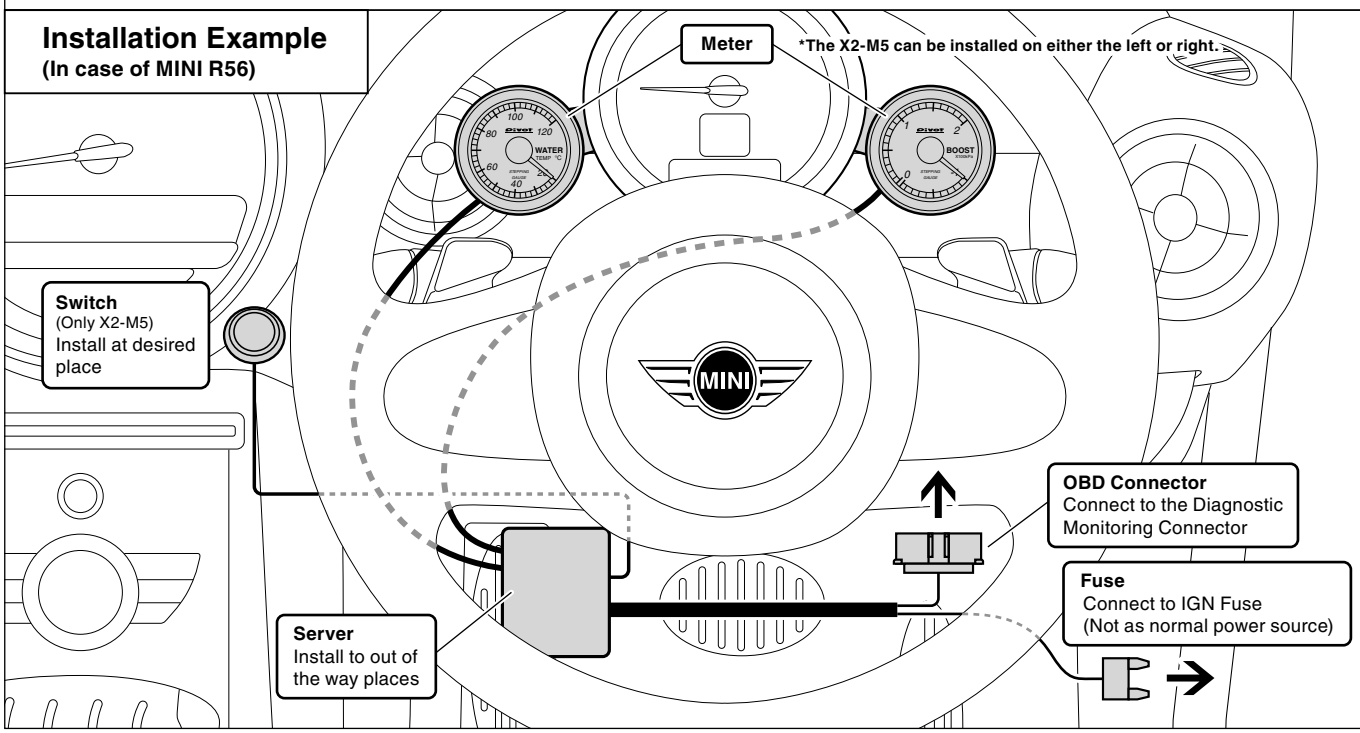
Wiring Method and Installation

BASIC WIRING — **Please carry out wiring with the engine turned OFF and the key removed.**



The 3-pin connectors can be connected to any of the three positions

Installation Example
(In case of MINI R56)

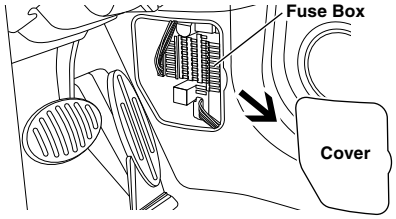


1 Connecting to a Power Source

The following is just one example of wiring to the fuse box of a BMW MINI COOPER S MF16S (steering wheel on right). If your model is different and you are unsure of how to connect please contact your dealer.

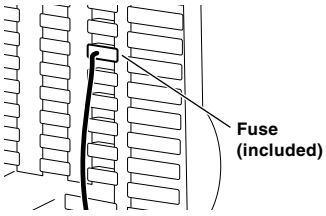
① Remove the Cover of the Fuse Box

Use a flathead screwdriver or such tool to remove the cover of the fuse box found on the side of the panel to the right of the steering wheel.



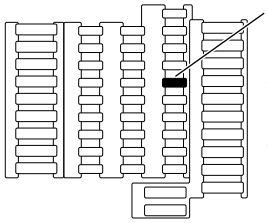
② Insert the Fuse

Remove the fuse for IGN (12 V with key switch ON), and insert the 7.5 A mini-fuse from the fuse power cable.



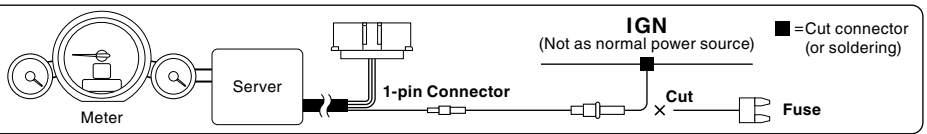
[Reference 1]

Ex: BMW MINI COOPER S MF16S (steering wheel on right, 2008 MODEL)



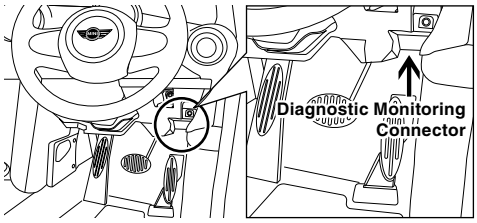
*If you wish to get power from a fuse other than the 7.5A mini-fuse, please purchase separately.

⚠ If you are unable to get power from the fuse box, please wire directly to IGN (12V with key in ON position). *Do not connect the red wire coming from the OBD connector.

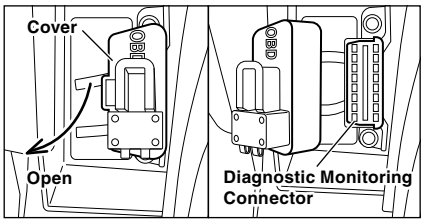


2 Connecting the OBD Connector

① Locate the Diagnostic Monitoring Connector Position

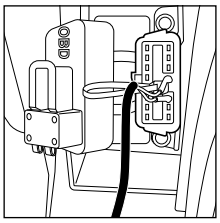


② Open the Cover



③ Completely insert the OBD Connector

Insert the OBD connector to the diagnostic monitoring connector from the server.



About Using OBD Products in Combination

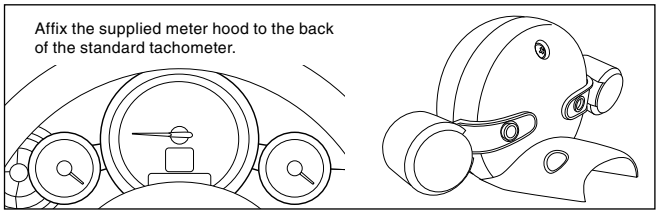
If you wish to use this product in combination with products in our 3-drive Series (FLAT or COMPACT), PROGAUGE , the “OBD2 Wiring Kit OBD-EH” (sold separately ¥3,200) makes installation a snap.

For more details about using combinations of products see here. *http://pivotjp.com/obd-e/*

*When using the this product with products mentioned above, they can only be used together in compatible model vehicles for both products.

3 Fastening The Meter

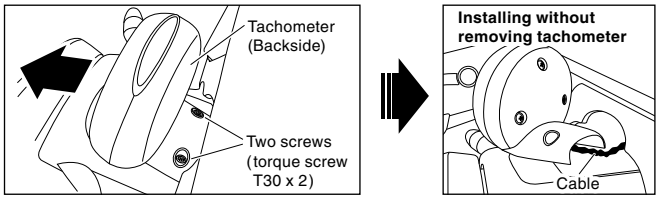
The X2-M5 can be installed on either the left or right.Only carry out the following instructions on the side being used.



① Remove the standard tachometer

Unscrew the two screws (torque screw T30 x 2) from the base at the back of the tachometer and remove it by pulling it forward. (As the wiring for the tachometer is connected to inside the steering column it cannot be removed. Carry out all operations with the wiring pulled out but connected.)

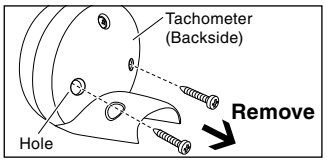
*Make sure not to lose any removed parts.



② Unscrew the screws at the back of the tachometer

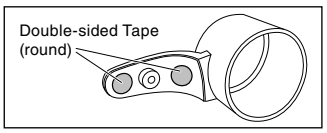
Remove the screw from the hole at the back of the tachometer.

*Put the bolt store in a safe place.



③ Affix Double-sided Tape to the Stay on the Meter Hood

Affix the provided double-sided tape (round) to the two places as shown in the figure to the right.

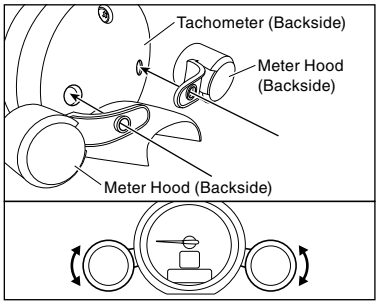


④ Lightly Fasten the Meter Hood

Line up the screw holes on the original tachometer with the screw holes on the meter hood and lightly fasten with the double-sided tape.

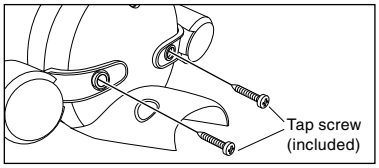
*Do not press to strongly on the tape; it may become difficult to remove.

When installing the 52X-BW please make adjustments to line up the meters on each side.



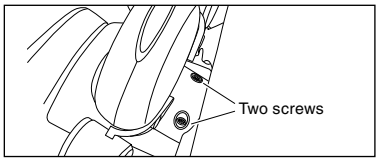
⑤ Fix the meter hood with the screws

Use the provided tap screws to fasten.



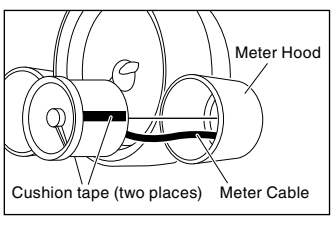
⑥ Return the tachometer to its original position

Return the tachometer to its original place by going in the reverse order from ① above, and securely fasten with the two screws.



⑦ Fasten the meter to the meter hood

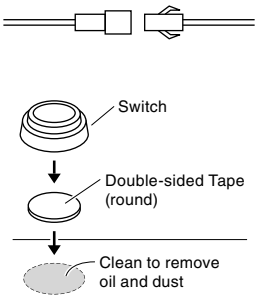
Affix the provided cushion tape to two places on the sides of the meter. Pull the meter cable through the hole at the back of the meter hood and insert it into the 5-pin connector at the back of the meter. After having decided the angle press the meter into the hood at finish the installation.



4 Connecting the Switch (Only X2-M5)

① Connect the 2-pin connector from the switch by inserting it into the 2-pin connector coming from the server.

② Position the switch in the desired place and affix with double-sided tape (round).

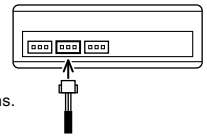


5 Fastening The Server

① Connect the meter cable and fuse power cord to the server.

• Meter Cable

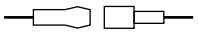
3-pin Connector **Connect to the server's 3-pin connector.**



*The 3-pin connector can be connected to any of the three positions.

• Fuse Power Cable

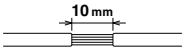
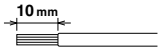
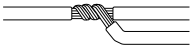
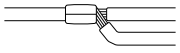
1-pin Connector **Connect to the 1-pin connector coming from the black tube of the server.**



② Use the provided double-sided tape (square) to fasten down the server in an out of the way place.

③ Bundle up all loose wires and fasten together using the provided zip tie.

[Reference 2] How to use the Cut Connector

1  Peel off of the vinyl cover at connection.	2  Peel off of the vinyl cover at the end of the product's wire.
3  Wrap around both wire coils.	4  Close tightly with cut connector.
5 Insulate with vinyl tape.	*When crimping, please use crimpers or use pliers to bend and then solder together.

[Reference 3] Notes about using the OBD Connector

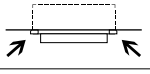
Make sure to grip the distended portions when pulling it out or inserting it.

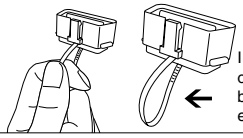
⚠ CAUTION

Do not pull on the wires when trying to remove the connector; the wires may become disconnected.

If you unable to get a grip on the distended portions.

With some car models it may be difficult to get a good grip on the connector.



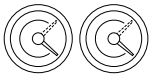


In such case, pull out the connector by pulling on the end of the zip tie.

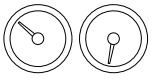
Basic Operation

1

Key Switch ON (Engine start)

2 

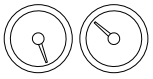
Opening Demo

3 

Real display
Each meter will display actual measurements.

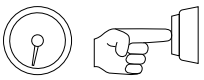
4

Key Switch OFF (Engine stop)

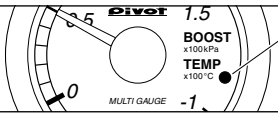
5 

Meter OFF
The needle stops at the key OFF position.

Switching the Display (Only X2-M5)



Each pressing of the switch will change the display between Boost and Water Temperature.



While water temperature is on display the mode lamp will be ON.

Troubleshooting

Trouble		Possible Causes	Possible Solutions
Does not work with Engine start.		Poor connection of meter cable, OBD connector or fuse.	Please reconfirm whether wiring and connections are correct or not.
		If wiring has been direct to power the red wire may have been improperly wired or there is a poor connection.	
The opening demo works fine, but after that nothing happens.		The unit has been installed into an incompatible car model.	Please check the "Fitting List".
The displayed values are different from the standard meter.		The unit has been installed into an incompatible car model.	Please check the "Fitting List".
		Due to the ECU information received, the displayed values on this product may differ from those of standard or other meters.	
The boost pressure display is different from the standard or other meter.		This product's boost meter reads absolute pressure and may differ from a meter using relative pressure.	
With the key in the ON position the boost needles points to a minus reading.		The sensor for absolute pressure is subtracting for barometric pressure and hence the display shows minus. (EX: Elevation of 700 meters = minus 8 kPa)	
Before the opening demo starts the needle briefly moves.		This is due to a special characteristic of the meter and is not a malfunction.	
Only X2-M5	I can't change the display.	Poor connection of 2-pin connector.	Please reconfirm whether wiring and connections are correct or not.
	Upon starting up, the unit will start in the newly changed mode.	Because after changing modes, if the car's engine is turned off within 3 seconds, the new setting will not be stored, make sure to wait at least 3 seconds before turning the engine off.	

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